

April 14, 2011

**ADDENDUM NO. 1**

To

**CONTRACT DOCUMENTS**

For

**B.F. PHILLIPS COMMUNITY PARK – PHASE 3**

CITY OF FRISCO

6101 Frisco Square Blvd.

Frisco, Texas 75034

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Dallas, Texas 75230

LDP Project # R0104130-60002

The following Items modify or supersede the provisions of the Drawings and Project Manual dated April 8, 2011 and become a part of the Contract Documents. The Addendum consists of itemized changes to specifications as indicated:

<b><u>SPECIFICATIONS</u></b>	<b>REFERENCE</b>	<b>DESCRIPTION</b>
Item 1.1	Division 2	Add Technical Specification Section 02345 – Lime Soil Stabilization

End of Addendum No. 1

## SECTION 02345 – LIME SOIL STABILIZATION

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Excavating, treatment, and placement of lime treated subsoil mix.

#### 1.2 RELATED SECTIONS

- A. Section 02060 - Aggregate.
- B. Section 02316 - Rock Removal.
- C. Section 02360 - Soil Treatment.
- D. Section 02315 - Excavation and Fill: General site and building excavation.
- E. Section 02320 - Backfill: General site and building backfilling.
- F. Section 02324 - Trenching: Backfilling of utility trenches.
- G. Section 03300 - Cast-In-Place Concrete: Concrete materials.

#### 1.3 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Lime/Subsoil Mix:
  - 1. Basis of Measurement: By the square yard based on a lime/soil mix ratio of a minimum of 7% hydrated lime (by dry soil weight).
  - 2. Basis of Payment: Includes supplying ingredient materials, scarifying substrate surface, mixing and placing where required, placing geotextile fabric, compacting and curing.

#### 1.4 REFERENCES

- A. TXDOT Standard Specification Item 260.
- B. AASHTO M216 - Lime for Soil Stabilization.
- C. ASTM C 977 - Quicklime and Hydrated Lime for Soil Stabilization.
- D. ASTM D 698 - Moisture Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5 pound (2.49 kg) Rammer and 12 inch (304.8 mm) Drop.
- E. NLA Bulletin 326 - Lime Stabilization Construction Manual.

#### 1.5 SUBMITTALS

- A. Product Data: Submit mix design and materials mix ratio that will achieve specified requirements.
- B. Samples: Submit 10-pound sample of each type of fill in air-tight containers, to testing laboratory.

#### 1.6 QUALITY ASSURANCE

- A. Perform Work in conformance with TxDOT standard specification item 260 and the City of Frisco.
- B. Work to be per Geo-technical report for this project.

#### 1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install mixed materials in wind in excess of 10 mph or when temperature is below 35 degrees F.

### PART 2 - PRODUCTS

#### 2.1 MIX MATERIALS

- A. Subsoil: Existing reused.
- B. Lime: ASTM C 977.

#### 2.2 ACCESSORIES

- A. Curing Seal: Asphalt emulsion primer.
- B. Geotextile Fabric:
  - 1. Non-woven polypropylene.
  - 2. Manufacturers:
    - a. Akzo Nobel Geosynthetic Co.
    - b. Huesker, Inc.
    - c. Synthetic Industries.
    - d. TC Mirafi.
    - e. Tenax Corp.
    - f. Tensar Earth Technologies, Inc.

#### 2.3 EQUIPMENT

- A. Capable of excavating subsoil, mixing and placing materials, wetting, consolidation, and compaction of material.

#### 2.4 LIME/SOIL MIX

- A. Mix materials in conformance with TxDOT standard specification item 260.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Do not place fill over frozen or spongy subgrade surfaces.

### 3.2 PREPARATION

- A. Coordinate requirements with piling operations.

### 3.3 EXCAVATION

- A. Protect adjacent structures from damage by this Work.
- B. Excavate subsoil to the depth indicated.
- C. Proof roll subgrade to identify soft areas; excavate those areas.
- D. Do not excavate within normal 45 degree bearing splay of any foundation.
- E. Remove lumped subsoil, boulders, and rock up to 1/3-cubic yard measured by volume. Larger material will be removed under Section 02229.
- F. Notify A/E of unexpected subsurface conditions. Discontinue affected Work in area until notified to resume Work.
- G. Correct areas over-excavated in accordance with Section 02315.
- H. Stockpile excavated material in area designated on site; remove excess material not being reused from site.

### 3.4 SOIL TREATMENT AND BACKFILLING

- A. Place geotextile fabric over subsoil surface, lap edges and ends.
- B. Site mix subsoil, backfill and compact. Blend treated subsoil mix to achieve mix formulation and required stabilization.
- C. Mix and wait 16 hours minimum and no more than 72 hours maximum before placing.
- D. Place mix material in continuous layers not exceeding 8 inches depth.
- E. Maintain optimum moisture content of mix materials to attain required stabilization.
- F. Do not exceed 30 minutes in placing adjacent mixed material.
- G. Commence compaction of mix no later than 60 minutes after placement.

- H. Compact mix to ASTM D 698.
- I. Slope grade away from building minimum 2 inches in 10 feet, unless noted otherwise.
- J. Shape to required line, grade, and cross section.
- K. Make grade changes gradual. Blend slope into level areas.
- L. At end of day, terminate completed Work by forming a straight and vertical construction joint.
- M. Replace damaged fill with new mix to full depth of original mix.
- N. Remove surplus mix materials from site.

### 3.5 CURING

- A. Immediately following compaction of mix, seal top surface with curing seal.
- B. Do not permit traffic for 72 hours after sealing top surface.

### 3.6 TOLERANCES

- A. Top Surface of Fill: Plus or minus 1 inch from required elevations.

### 3.7 FIELD QUALITY CONTROL

- A. Compression test and analysis of hardened fill material will be performed in accordance with ASTM D 698.
- B. If tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- C. Frequency of Tests: 5000 SF

### 3.8 SCHEDULE

- A. Fill Under Slabs-On-Grade: Fill to 4 inches thick.
- B. Fill Under Concrete Paving: Fill to 6 inches below finish paving elevation.
- C. Fill to Correct Over Excavation: Subsoil mix, flush to required elevation.

END OF SECTION